

GS-0850-13 Mechanical Engineer (SME), Savannah District Office, Savannah GA

Serves as Subject Matter Expert in the Mechanical Section of the Savannah District office in planning, designing, and coordinating mechanical engineering activities for civil works, military works, and work for others. The employee's expertise covers a wide range of professional engineering work requiring superior knowledge in the fields of mechanics of materials, fluid mechanics, thermodynamics, and control theory. Most work is performed within the Savannah District; however, the employee's expertise is considered a District asset, and they provide assistance to Construction Field offices as needed.

1. Applies advanced concepts, principles, and practices of mechanical engineering to develop technical criteria and modify existing guide specifications, or develop new specifications as required. Interprets policies and regulations, and resolves controversial technical design issues as they arise. Individual enhance Corps-wide consistency, facilitates technology transfer, and helps maintain institutional knowledge in key areas to improve service to customers. Assignments are complex and diverse and involve Military Construction (MILCON) projects, Civil Works (CW) projects, and support for others.
2. Technical Expert in Mechanical Design and Construction within the District. Applies a wealth of advanced concepts, principles, and practices of mechanical engineering to serve as the mechanical design expert in full range of mechanical systems for MILCON and CW projects. Focuses on specific mechanical engineering features such as water/air/gas plumbing systems; drainage piping systems; wet-pipe/dry-pipe sprinkler, chemical (fire protection) systems; acoustics; heating, ventilating, air- conditioning (HVAC) and direct digital control systems; force protection and antiterrorism building features; refrigeration systems; utility monitoring and control systems (UMCS); sustainable design (Spirit/LEED); hydraulics and mechanical equipment of spillways and dams for flood control; tainter/intake gate hoisting system; overhead cranes; and seismic protection for mechanical installations.
3. Designs, and reviews mechanical design features of proposed works; serves as consultant and technical expert; interprets policies and regulations; makes field inspections; analyzes functional and operational aspects to determine if proposed work is within authority and if technically sound; provides information, recommendations and assistance to team members throughout the District for MILCON and CW projects. Coordinates proposed design features at project concept phase with project manager and using agencies.
4. As the technical specialist, responds to requests for technical advice and assistance from any team member. Provides authoritative advice on designs as well as during the construction phase of projects. Confers with engineers in other organizations engaged in various aspects of engineering design and construction to resolve conflicts or delays to the timely completion of work. Recommends solutions to problems, which may involve technical and administrative changes. Evaluates and resolves design problems through discussions with engineering representatives of the using agency, HQUSACE, CESAD, CESAS and members of the engineering staffs involved. Documents and educates others on "lessons learned."